



# HIMOINSA



MODEL  
**HFW-350 T5**  
INDUSTRIAL RANGE  
Standard soundproofing  
Powered by FPT\_IVECO

-  G1
-  WATER-COOLED
-  THREE PHASE
-  50 HZ
-  STAGE 2
-  DIESEL

## Generating Rates



| SERVICE               |         | PRP           | ESP |
|-----------------------|---------|---------------|-----|
| Power                 | kVA     | 350           | 390 |
| Power                 | kW      | 280           | 312 |
| Rated Speed           | r.p.m.  | 1.500         |     |
| Standard Voltage      | V       | 400/230       |     |
| Available Voltages    | V       | 230 - 230/132 |     |
| Rated at power factor | Cos Phi | 0,8           |     |

01

**HIMOINSA Company with quality certification ISO 9001**

**HIMOINSA gensets are compliant with EC mark which includes the following directives:**

- 2006/42/CE Machinery safety.
- 2014/30/UE Electromagnetic compatibility.
- 2014/35/UE electrical equipment designed for use within certain voltage limits
- 2000/14/EC Sound Power level. Noise emissions outdoor equipment. (amended by 2005/88/EC)
- EN 12100, EN 13857, EN 60204

Ambient conditions of reference according to ISO 8528-1:2018 normative: 1000 mbar, 25°C, 30% relative humidity.

**Prime Power (PRP):**

According to ISO 8528-1:2018, Prime power is the maximum power which a generating set is capable of delivering continuously whilst supplying a variable electrical load when operated for an unlimited number of hours per year under the agreed operating conditions with the maintenance intervals and procedures being carried out as prescribed by the manufacturer. The permissible average power output (Ppp) over 24 h of operation shall not exceed 70 % of the PRP.

**Emergency Standby Power (ESP):**

According to ISO 8528-1:2018, Emergency standby power is the maximum power available during a variable electrical power sequence, under the stated operating conditions, for which a generating set is capable of delivering in the event of a utility power outage or under test conditions for up to 200 h of operation per year with the maintenance intervals and procedures being carried out as prescribed by the manufacturers. The permissible average power output over 24 h of operation shall not exceed 70 % of the ESP

G2 class load acceptance in accordance with ISO 8528-5:2013

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## Engine Specifications 1.500 r.p.m.

| ENGINE                                      |      | PRP                           | ESP |
|---------------------------------------------|------|-------------------------------|-----|
| Rated Output                                | kW   | 300                           | 330 |
| Manufacturer                                |      | FPT_IVECO                     |     |
| Model                                       |      | C13TE2A                       |     |
| Engine Type                                 |      | 4-stroke diesel               |     |
| Injection Type                              |      | Direct                        |     |
| Aspiration Type                             |      | Turbocharged and after-cooled |     |
| Number of cylinders and arrangement         |      | 6-L                           |     |
| Bore and Stroke                             | mm   | 135 x 150                     |     |
| Displacement                                | L    | 12,9                          |     |
| Cooling System                              |      | Liquid (water + 50% glycol)   |     |
| Lube Oil Specifications                     |      | ACEA E3 - E5                  |     |
| Compression Ratio                           |      | 16,5 : 1                      |     |
| Fuel Consumption ESP                        | l/h  | 77,9                          |     |
| Fuel Consumption 100% PRP                   | l/h  | 70                            |     |
| Fuel Consumption 80 % PRP                   | l/h  | 57,3                          |     |
| Fuel Consumption 50 % PRP                   | l/h  | 38,8                          |     |
| Lube oil consumption with full load         |      | 0,5 % of fuel consumption     |     |
| Total oil capacity including tubes, filters | L    | 35                            |     |
| Total coolant capacity                      | L    | 67                            |     |
| Governor                                    | Type | Electrical                    |     |
| Air Filter                                  | Type | Dry                           |     |
| Inner diameter exhaust pipe                 | mm   | 108                           |     |

## Generator

| Generator                      |       |                                |
|--------------------------------|-------|--------------------------------|
| Manufacturer                   |       | STAMFORD                       |
| Poles                          | No.   | 4                              |
| Connection type (standard)     |       | Star-series                    |
| Mounting type                  |       | S-1 14"                        |
| Insulation                     | Class | H class                        |
| Enclosure (according IEC-34-5) |       | IP23                           |
| Exciter system                 |       | Self-excited, brushless        |
| Voltage regulator              |       | A.V.R. (Electronic)            |
| Bracket type                   |       | Single bearing                 |
| Coupling system                |       | Flexible disc                  |
| Coating type                   |       | Standard (Vacuum impregnation) |



## Application Data

### Exhaust System

|                                         |          |       |
|-----------------------------------------|----------|-------|
| Maximum exhaust temperature             | °C       | 479   |
| Exhaust Gas Flow                        | kg/s     | 0,518 |
| Maximum allowed back pressure           | kPa      | 5     |
| Exhaust Flange Size (external diameter) | mm       | 140   |
| Heat dissipated by exhaust pipe         | KCal/Kwh | 648   |

### Necessary Amount Of Air

|                         |                   |      |
|-------------------------|-------------------|------|
| Intake air flow         | m <sup>3</sup> /h | 1495 |
| Cooling Air Flow        | m <sup>3</sup> /s | 6,8  |
| Alternator fan air flow | m <sup>3</sup> /s | 0,8  |

### Starting System

|                     |     |      |
|---------------------|-----|------|
| Starting power      | kW  | 5,5  |
| Starting power      | CV  | 7,48 |
| Recommended battery | Ah  | 185  |
| Auxiliary Voltage   | Vdc | 24   |

### Fuel System

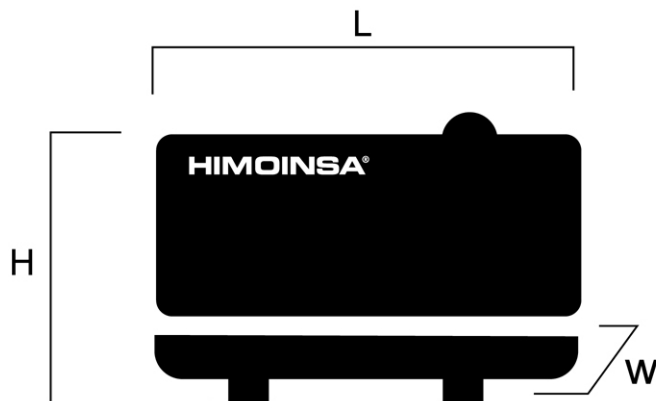
|                            |   |        |
|----------------------------|---|--------|
| Fuel Oil Specifications    |   | Diesel |
| Fuel Tank                  | L | 597    |
| Other fuel tank capacities | L | 1.660  |



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## Dimensions



| G1 Weight and Dimensions                     |    |                |          |
|----------------------------------------------|----|----------------|----------|
| (L) Length                                   | mm | 4.100          |          |
| (H) Height                                   | mm | 2.200          |          |
| (W) Width                                    | mm | 1.600          |          |
| Maximum shipping volume                      |    | m <sup>3</sup> | 14,43    |
| (*) Weight with liquids in radiator and sump | kg | 4.191          |          |
| Fuel tank capacity                           |    | L              | 597      |
| Autonomy                                     |    | Hours          | 10       |
| Sound pressure level                         |    | dB(A)@7m       | 68 ± 2,4 |
| (*) (with standard accessories)              |    |                |          |

STANDARD VERSION (Steel tank)

Himoinsa has the right to modify any feature without prior notice.  
Weights and dimensions based on standard products. Illustrations may include optional equipment.  
Technical data described in this catalogue correspond to the available information at the moment of printing.  
Industrial design under patent.

Local Distributor



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## Dimensions of Other Available Versions

| Weight and Dimensions                        |                |          |
|----------------------------------------------|----------------|----------|
| (L) Length                                   | mm             | 4.100    |
| (H) Height                                   | mm             | 2.600    |
| (W) Width                                    | mm             | 1.600    |
| Maximum shipping volume                      | m <sup>3</sup> | 17,06    |
| (*) Weight with liquids in radiator and sump | kg             | 4.826    |
| Fuel tank capacity                           | L              | 1.660,0  |
| Autonomy                                     | Hours          | 29       |
| Sound pressure level                         | dB(A)@7m       | 68 ± 2,4 |

(\*) (with standard accessories)

HIGH CAPACITY VERSION (Steel tank)



# HIMOINSA

## CONTROL PANEL MODEL

### M5

Digital manual Auto-Start control panel and thermal magnetic protection (depending on current and voltage) and differential with CEM7. Digital control unit CEM7



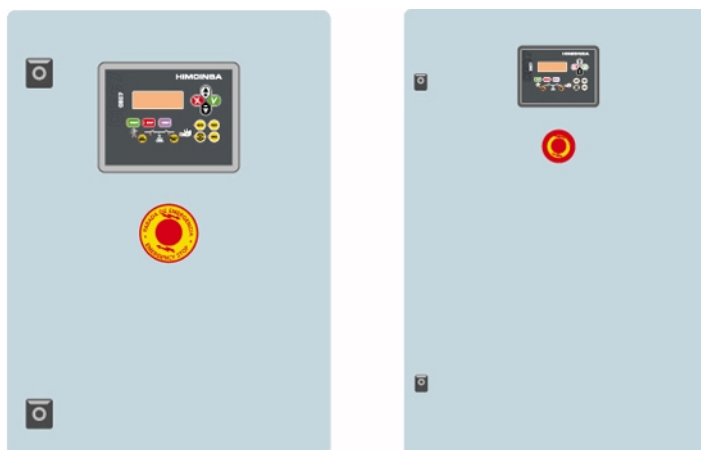
### AS5

Automatic panel WITHOUT transfer switch and WITHOUT mains control with CEM7 unit. (\*) AS5 as optional with CEA7 unit. Automatic panel without transfer switch and WITH mains control.



### CC2

Himoinsa Switching cabinet WITH display. Digital control unit CEC7



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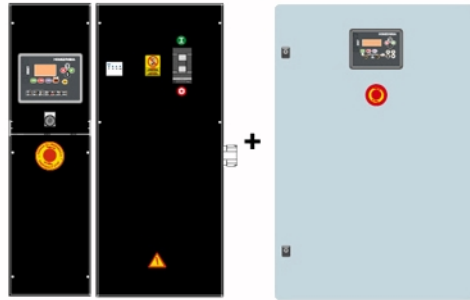


# HIMOINSA

## CONTROL PANEL MODEL

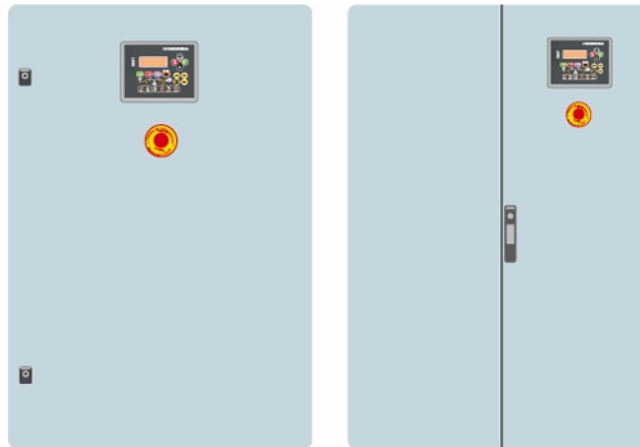
### AS5 + CC2

Automatic panel WITH transfer switch and with mains control. The display will be on the genset and on the cabinet. Digital control unit CEM7+CEC7



### AC5

Automatic mains failure control panel. Wall-mounted cabinet WITH transfer switch and thermal magnetic protection (depending on current and voltage). Digital control unit CEA7



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## Controller features (I)

- : Standard
- x : Not included
- : Optional

| Generator Readings                 | CEM 7 | CEA 7 | CEC 7 | CEM7 + CEC7 |
|------------------------------------|-------|-------|-------|-------------|
| Voltage between phases             | •     | •     | •     | •           |
| Voltage between neutral and phase  | •     | •     | •     | •           |
| Current intensities                | •     | •     | •     | •           |
| Frequency                          | •     | •     | •     | •           |
| Apparent power (Kva)               | •     | •     | •     | •           |
| Active power (Kw)                  | •     | •     | •     | •           |
| Reactive power (kVAr)              | •     | •     | •     | •           |
| Power factor                       | •     | •     | •     | •           |
| Mains Readings                     | CEM 7 | CEA 7 | CEC 7 | CEM7 + CEC7 |
| Voltage between phases             | x     | •     | •     | •           |
| Voltage between phases and neutral | x     | •     | •     | •           |
| Current intensities                | x     | •     | •     | •           |
| Frequency                          | x     | •     | •     | •           |
| Apparent power                     | x     | •     | x     | x           |
| Active power                       | x     | •     | x     | x           |
| Reactive power                     | x     | •     | x     | x           |
| Power factor                       | x     | •     | x     | x           |
| Engine Readings                    | CEM 7 | CEA 7 | CEC 7 | CEM7 + CEC7 |
| Coolant temperature                | •     | •     | x     | •           |
| Oil pressure                       | •     | •     | x     | •           |
| Fuel level (%)                     | •     | •     | x     | •           |
| Battery voltage                    | •     | •     | x     | •           |
| R.P.M.                             | •     | •     | x     | •           |
| Battery charge alternator voltage  | •     | •     | x     | •           |
| Engine Protections                 | CEM 7 | CEA 7 | CEC 7 | CEM7 + CEC7 |
| High water temperature             | •     | •     | x     | •           |
| High water temperature by sensor   | •     | •     | x     | •           |
| Low water temperature by sensor    | •     | •     | x     | •           |
| Low oil pressure                   | •     | •     | x     | •           |
| Low oil pressure by sensor         | •     | •     | x     | •           |
| Low water level                    | •     | •     | x     | •           |
| Unexpected shutdown                | •     | •     | x     | •           |



## Controller features (II)

- : Standard
- x : Not included
- : Optional

| Engine Protections                | CEM 7 | CEA 7 | CEC 7 | CEM7 + CEC7 |
|-----------------------------------|-------|-------|-------|-------------|
| Fuel storage                      | •     | •     | x     | •           |
| Fuel storage by sensor            | •     | •     | x     | •           |
| Stop failure                      | •     | •     | x     | •           |
| Battery voltage failure           | •     | •     | x     | •           |
| Battery charge alternator failure | •     | •     | x     | •           |
| Overspeed                         | •     | •     | x     | •           |
| Underspeed                        | •     | •     | x     | •           |
| Start failure                     | •     | •     | x     | •           |
| Emergency stop                    | •     | •     | •     | •           |
| Alternator Protections            | CEM 7 | CEA 7 | CEC 7 | CEM7 + CEC7 |
| High frequency                    | •     | •     | •     | •           |
| Low frequency                     | •     | •     | •     | •           |
| High voltage                      | •     | •     | •     | •           |
| Low voltage                       | •     | •     | •     | •           |
| Short-circuit                     | •     | •     | x     | •           |
| Asymmetry between phases          | •     | •     | •     | •           |
| Incorrect phase sequence          | •     | •     | •     | •           |
| Inverse power                     | •     | •     | x     | •           |
| Overload                          | •     | •     | x     | •           |
| Genset signal drop                | •     | •     | •     | •           |
| Counters                          | CEM 7 | CEA 7 | CEC 7 | CEM7 + CEC7 |
| Total hour counter                | •     | •     | •     | •           |
| Partial hour counter              | •     | •     | •     | •           |
| Kilowatt meter                    | •     | •     | •     | •           |
| Starts valid counters             | •     | •     | •     | •           |
| Starts failure counters           | •     | •     | •     | •           |
| Maintenance                       | •     | •     | •     | •           |
| Communications                    | CEM 7 | CEA 7 | CEC 7 | CEM7 + CEC7 |
| RS232                             | •     | •     | •     | •           |
| RS485                             | •     | •     | •     | •           |
| Modbus IP                         | •     | •     | •     | •           |
| Modbus                            | •     | •     | •     | •           |



## Controller features (III)

- : Standard
- x : Not included
- : Optional

| Communications                      | CEM 7                | CEA 7                | CEC 7                | CEM7 + CEC7          |
|-------------------------------------|----------------------|----------------------|----------------------|----------------------|
| CCLAN                               | •                    | •                    | x                    | •                    |
| Software for PC                     | •                    | •                    | •                    | •                    |
| Analogue modem                      | •                    | •                    | •                    | •                    |
| GSM/GPRS modem                      | •                    | •                    | •                    | •                    |
| Remote screen                       | •                    | •                    | x                    | •                    |
| Tele signal                         | • (8 + 4)            | • (8 + 4)            | x                    | • (8 + 4)            |
| J1939                               | •                    | •                    | x                    | •                    |
| Features                            | CEM 7                | CEA 7                | CEC 7                | CEM7 + CEC7          |
| Alarm history                       | • (10) / (opc. +100) | • (10) / (opc. +100) | • (10) / (opc. +100) | • (10) / (opc. +100) |
| External start                      | •                    | •                    | •                    | •                    |
| Start inhibition                    | •                    | •                    | •                    | •                    |
| Mains failure start                 | x                    | •                    | •                    | •                    |
| Start under normative EJP           | •                    | •                    | x                    | •                    |
| Pre-heating engine control          | •                    | •                    | x                    | •                    |
| Genset contactor activation         | •                    | •                    | •                    | •                    |
| Mains & Genset contactor activation | x                    | •                    | •                    | •                    |
| Fuel transfer control               | •                    | •                    | x                    | •                    |
| Engine temperature control          | •                    | •                    | x                    | •                    |
| Manual override                     | •                    | •                    | x                    | •                    |
| Programmable alarms                 | •                    | •                    | x                    | •                    |
| Genset start function in test mode  | •                    | •                    | •                    | •                    |
| Programmable outputs                | •                    | •                    | x                    | •                    |
| Multilingual                        | •                    | •                    | •                    | •                    |
| Special Functions                   | CEM 7                | CEA 7                | CEC 7                | CEM7 + CEC7          |
| GPS Positioning                     | •                    | •                    | x                    | •                    |
| Synchronisation                     | •                    | •                    | x                    | •                    |
| Mains synchronization               | •                    | •                    | x                    | •                    |
| Second Zero elimination             | •                    | •                    | x                    | •                    |
| RAM7                                | •                    | •                    | x                    | •                    |
| Remote screen                       | •                    | •                    | x                    | •                    |
| Programming timer                   | •                    | •                    | x                    | •                    |



## Generator set features

### Engine

- Diesel engine
- 4-stroke cycle
- Water-cooled
- 24V electrical system
- Water separator filter (no visible level)
- Dry air filter
- Radiator with blower fan
- HTW sender
- LOP sender
- Radiator water level sensor
- Electronic governor
- Hot parts protection
- Moving parts protection

### Alternator

- Self-excited and self-regulated
- 4 poles
- AVR governor
- IP23 protection
- H class insulation
- Single drive-shaft
- Flexible disc coupling

### Electrical system

- Electric control and power panel with measurements devices and control unit (according to necessity and configuration)
- 4-pole thermal magnetic circuit breaker
- Battery isolator
- Adjustable earth leakage protection (time & sensitivity) standard in M5 and AS5, with thermal magnetic protection
- Battery charger (standard on gensets with automatic control panels)
- Heating resistor (standard on sets with automatic control panels)
- Battery charger alternator with ground connection
- Starter battery/ies installed (cables and bracket included)
- Ground connection electrical installation with connection ready for ground spike (not supplied)

### Soundproofed version

- Steel chassis
- Anti-vibration shock absorbers
- Fuel tank
- Fuel level gauge
- Emergency stop button
- Bodywork made from high quality steel plate
- High mechanical strength
- Low level of noise emissions
- Soundproofing provided by high-density volcanic rock wool
- Epoxy polyester powder coating
- Full access for maintenance (water, oil and filters, no need to remove the bonnet)
- Reinforced lifting hooks for crane hoisting
- Watertight chassis (acts as a double barrier against liquid retention)
- Fuel tank drain plug



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## Generator set features

### Soundproofed version

- Chassis drain plug
- Chassis ready for future mobile kit installation
- Steel residential silencer -35db(A) attenuation.
- Oil sump extraction kit
- Versatility to assemble a high capacity chassis with a metallic fuel tank
- IP Protection according to ISO 8528-13:2016
- Optional :
  - 3 way valve for external fuel supply (available in 1/2" and 3/8" fittings)
  - Fuel transfer pump



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## PDF Summary

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